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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,220	03/30/2004	Mark A. Wildman	D5531	3857
30409	7590	10/18/2005	EXAMINER	
INTERNATIONAL ENGINE INTELLECTUAL PROPERTY COMPANY			MCCALL, ERIC SCOTT	
4201 WINFIELD ROAD			ART UNIT	
P.O. BOX 1488			PAPER NUMBER	
WARRENVILLE, IL 60555			2855	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/813,220	<b>Applicant(s)</b> WILDMAN, MARK A.	
	<b>Examiner</b> Eric S. McCall	<b>Art Unit</b> 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **FUEL INJECTOR TESTING SYSTEM**

### **FIRST OFFICE ACTION ON THE MERITS**

In response to the Applicant's election dated Aug. 05, 2005.

#### **ELECTION**

The Applicant's election with traverse of invention II is acknowledged. The traversal is not found to be persuasive because independent claim 8 (as well as independent claim 1) does not require varying an amount of air in a test volume in order to test the volume for an air leakage as is required in invention II.

Thus the requirement is still deemed proper and is therefore made FINAL.

Accordingly, claims 1-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

### **DRAWINGS**

The drawings are objected to because of the clarity thereof. Uncertainty exists with various features depicted in the drawings as well as the element numbering therein.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**CLAIMS**

**35 U.S.C. § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 21, 25, 27, 32, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fegel (3,874,225).

With respect to claims 19, 21, 25, 27, and 32, Fegel suggests a method for testing a fuel injector, comprising the steps of:

mechanically isolating at least one test volume of a fuel injector with a sleeve (22);

changing the amount of air in the at least one test volume; and

testing the at least one test volume for air leakage (col. 3, lines 55-68).

With respect to claim 33, Fegel clearly suggests the claimed subject matter thereof (see Fig. 1 and col. 3, lines 55+).

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 22-24, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fegel (3,874,225).

With respect to claims 20 and 26, Fegel teaches one sealably engaging O-ring (40) but fails to teach at least two such O-rings as claimed.

Nonetheless, it would have been obvious to one having ordinary skill in the art armed with said teaching to use at least two sealably engaging O-rings.

The motivation being that by using more than one O-ring between the fuel injector and the sleeve a better seal between the two will be obtained and reduces the likelihood of a leakage.

With respect to claims 22-24 and 28-30, Fegel fails to teach such specific pressure levels or time periods as claimed but such levels and periods would have been obvious to one having ordinary skill in the art because the claimed levels and periods are typical operating ranges for such a device.

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With respect to claim 31, Fegel fails to explicitly teach the fuel injector being a hydraulically activated electronically controlled unit as claimed.

However, it would have been obvious to one having ordinary skill in the art armed with said teaching to use such a fuel injector as the prior art's fuel injector.

The motivation being that a hydraulically activated electronically controlled fuel injector is a very well known and commonly used fuel injector in the art as being a fuel injector used in a diesel engine.

#### **CITED DOCUMENTS**

The Applicant's attention is directed to the enclosed "PTO-892" form for the prior art made of record at the time of this office action.

#### **CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric S. McCall  
Primary Examiner  
Art Unit 2855  
Oct. 14, 2005